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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/910,632 | 07/20/2001 | Cheng-Lee Nee | 062891.0537 | 1775 |

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EXAMINER

PHAN, HUY Q

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2685

DATE MAILED: 05/24/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,632

Applicant(s)

NEE ET AL.

Examiner

Huy Q Phan

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8 and 11 is/are rejected.
- 7) ☒ Claim(s) 2, 7, 9, 10 and 12-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahl et al. (US-6,385,454) in view of Rimhagen et al. (US-6,594,245).

Regarding claim 1, Bahl et al. disclose in figure 1, a method of processing a request for a data communications handoff in a data network, comprising: determining whether there is sufficient bandwidth to accommodate the session in an initial cell associated with the request (col. 4, lines 52-60); determining a set of cells contiguous or near to the initial cell to which the session may be transferred during the pendency of the session (col. 4, lines 52-60); determining whether the selected set of cells have sufficient bandwidth to support a decision to admit the handoff (col. 4, lines 52-60). But Bahl et al. do not particularly show the steps of admitting a session to the initial cell if there is sufficient bandwidth in the initial cell and the identified contiguous cells. However in analogous art, Rimhagen et al. teach the steps of admitting the session to an initial cell if there is sufficient bandwidth in the initial cell (fig. 2, boxes 205-220 and col. 1, line 66-col. 2, line 15). Since, both Bahl et al. and Rimhagen et al. are related to the method of processing a request for a data communications session in a data

network; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Bahl et al. by specifically having the steps of admitting a session to an initial cell if there is sufficient bandwidth in the initial cell as taught by Rimhagen et al. for purpose of decreasing the chances of dropping connection between the mobile unit and the wireless communication network in an attempted hand-off in order to improve the quality and reliability of wireless communication service.

Regarding claim 3, Bahl et al. and Rimhagen et al. disclose a method as recited in the rejection of claim 1. Bahl et al. further disclose wherein the step of identifying contiguous cells comprises a step of identifying contiguous cells to which the session may travel by identifying cells previously occupied by the user (col. 4, lines 7-30).

Regarding claim 4, Bahl et al. and Rimhagen et al. disclose a method as recited in the rejection of claim 3. Bahl et al. further disclose wherein the step of identifying cells previously occupied by the user comprises the step of identifying the percentage of time in which the user resides in a particular cell (col. 3, line 59-col. 4, line 6).

Regarding claim 5, Bahl et al. and Rimhagen et al. disclose a method as recited in the rejection of claim 1. Bahl et al. further disclose wherein the step of determining a set of cells comprises the step of calculating a percentage likelihood that a user requesting the session will affect each of a predetermined number of cells and

comparing such percentages to a random number and selecting the set of cells responsive to the comparison (col. 3, lines 16-32 and col. 4, lines 7-30).

Regarding claim 6, Bahl et al. and Rimhagen et al. disclose a method as recited in the rejection of claim 1. Bahl et al. further disclose wherein the step of determining whether the selected set of cells have sufficient bandwidth (col. 4, lines 50-61) comprises the step of calculating a probability that a user requesting the session will enter a given cell and multiplying the probability by the requested bandwidth to yield a probabilistic weighted bandwidth and comparing the probabilistic weighted bandwidth to the actual available bandwidth in the given cell (col. 22, lines 53-67).

Regarding claim 8, Bahl et al. and Rimhagen et al. disclose a method as recited in the rejection of claim 1. Bahl et al. further disclose determining if the user requesting the service has ever resided in the initial cell or the contiguous or near cells; and if the user has not resided in the initial cell or the contiguous cells, assigning a new user probability profile to the user prior to calculating the available bandwidth (col. 8, lines 57-60).

Regarding claim 11, Bahl et al. disclose in figure 1, a data communications system comprising: a plurality of base transceiver stations (BTS) each station associated with a cell (fig. 1); a resource manager (BSC) in communication with each of the base transceiver stations (BTS) and operable to perform an admission control

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decision upon request from the base transceiver stations (col. 3, lines 61-67), the admission control decision comprising the steps of: determining whether there is sufficient bandwidth to accommodate the session in an initial cell associated with the request (col. 4, lines 52-60); determining a set of cells contiguous or near to the initial cell to which the session may be transferred during the pendency of the session (col. 4, lines 52-60); determining whether the selected set of cells have sufficient bandwidth to support a decision to admit the handoff (col. 4, lines 52-60). But Bahl et al. do not particularly show the steps of admitting a session to an initial cell if there is sufficient bandwidth in the initial cell and the identified contiguous cells. However in analogous art, Rimhagen et al. teach the steps of admitting a session to an initial cell if there is sufficient bandwidth in the initial cell (fig. 2, boxes 205-220 and col. 1, line 66-col. 2, line 15). Since, both Bahl et al. and Rimhagen et al. are related to the method of processing a request for a data communications session in a data network; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Bahl et al. by specifically having the steps of admitting a session to an initial cell if there is sufficient bandwidth in the initial cell as taught by Rimhagen et al. for purpose of decreasing the chances of dropping connection between the mobile unit and the wireless communication network in an attempted hand-off in order to improve the quality and reliability of wireless communication service.

Allowable Subject Matter

2. Claims 2, 7, 9, 10 and 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Lagneborg et al. (US-6,529,734) disclose a cellular telecommunications system.
- b) Wieczorek et al. (US-6,125,278) disclose a method for optimizing resource allocation.
- c) Rudrapatna et al. (US-6,188,905) disclose intelligent dynamic channel allocation.
- d) Dixon (US-2003/0125030) discloses wireless a cellular communications system.
- e) Gustavsson et al. (US-6,721,568) disclose admission control in a mobile radio communications system.
- f) Dorenbosch et al. (US-6,084,866) disclose a method in a wireless messaging system.
- g) Kumar et al. (US-6,418,148) disclose resource allocation in cellular system.
- h) McGovern et al. (US-2002/0142777) disclose dynamic channel bandwidth.

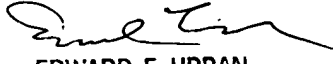
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy Q Phan whose telephone number is 703-305-9007. The examiner can normally be reached on 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Urban F Edward can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Huy Phan

Apr. 28, 2004


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